

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for production of an autologous vaccine to tumor cells comprising transducing the tumor cells with one or more species of herpes simplex virus amplicon containing the gene for an [immunomodulatory] immunostimulatory protein and at least one additional therapeutic gene to provide transient expression of the [immunomodulatory] immunostimulatory protein and the therapeutic gene product by the cells.

1 2. The method according to claim 1, wherein the tumor cells are transduced with the herpes
2 simplex amplicons *ex vivo*.

1 3. The method according to claim 1, wherein the tumor cells are transduced with the herpes
2 simplex amplicon *in vivo*.

1 4. (currently amended) A method for inducing a protective immune response to tumor cells
2 in a patient comprising the step of transducing the tumor cells with one or more species of
3 herpes simplex virus amplicon containing the gene for an [immunomodulatory]
4 immunostimulatory protein and at least one additional therapeutic gene to provide
5 transient expression of the [immunomodulatory] immunostimulatory protein and the
6 therapeutic gene product by the cells.

1 5. The method according to claim 4, wherein the tumor cells are transduced with the
2 amplicon *ex vivo*, further comprising the step of introducing the transduced tumor cells
3 into the patient.

1 6. The method according to claim 4, wherein the amplicons are injected into the site of the
2 tumor cells *in vivo*.

- 1 7. (currently amended)The method according to claim 1, wherein the [immunomodulatory]
2 immunostimulatory protein is a cytokine.
- 1 8. The method according to claim 7, wherein the cytokine is interleukin-2.
- 1 9. The method according to claim 7, wherein the cytokine is granulocyte macrophage colony
2 stimulating factor.
- 1 10. (currently amended) The method according to claim 7, wherein the
2 [immunomodulatory] immunostimulatory protein is a chemokine.
- 1 11. The method according to claim 10, wherein the chemokine is RANTES.
- 1 12. (currently amended) The method according to claim 1, wherein the
2 [immunomodulatory] immunostimulatory protein is an intercellular adhesion molecule.
- 1 13. The method according to claim 12, wherein the intracellular adhesion molecule is
2 ICAM-1.
- 1 14. (currently amended)The method according to claim 1, wherein the [immunomodulatory]
2 immunostimulatory protein is a costimulatory factor.
- 1 15. The method according to claim 14, wherein the costimulatory factor is B7.1.
- 1 16. (currently amended)The method according to claim 1, wherein a population of tumor cells
2 is transduced with a plurality of species of amplicons containing the genes for the
3 [immunomodulatory] immunostimulatory protein and the additional therapeutic gene.

- 1 17. (currently amended) The method according to claim 1, wherein the additional therapeutic
2 gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1 18. The method according to any of claims 17, wherein the tumor cells are transduced with
amplicons encoding and expressing at least two species of cytokines.
- 1 19. The method according to claim 18, wherein tumor cells are transduced with amplicons
2 containing the genes for interleukin-2 and interleukin-12.
- 1 20. The method according to claim 18, wherein the tumor cells are transduced with
2 amplicons encoding and expressing a cytokine and a costimulatory factor.
- 1 21. The method according to claim 20, wherein tumor cells are transduced with amplicons
2 containing the genes for RANTES and B7.1.
- 1 22. (previously amended) The method according to claim 1, wherein the tumor cells are
2 hepatoma cells or lymphoma cells.
- 1 23. (currently amended) A mixture containing a plurality of species of herpes simplex virus
2 amplicons, including at least a first species of amplicon containing the gene for at least
3 one [immunomodulatory] immunostimulatory protein and a second species of amplicon
4 containing the gene for an additional therapeutic gene product.
- 1 24. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]
2 immunostimulatory protein is a cytokine.
- 1 25. The mixture according to claim 24, wherein the cytokine is interleukin-2 or granulocyte
2 macrophage colony stimulating factor.

- 1 26. (currently amended) The mixture according to claim 23, wherein the
2 [immunomodulatory] immunostimulatory protein is a chemokine.
- 1 27. The mixture according to claim 26, wherein the chemokine is RANTES.
- 1 28. (currently amended)The mixture according to claim 23, wherein the [immunomodulatory]
2 immunostimulatory protein is a intercellular adhesion molecule.
- 1 29. The mixture according to claim 28, wherein the intracellular adhesion molecule is
2 ICAM-1.
- 1 30. (currently amended)The mixture according to claim 23, wherein the [immunomodulatory]
2 immunostimulatory protein is a costimulatory factor.
- 1 31. The mixture according to claim 30, wherein the costimulatory factor is B7.1.
- 1 32. (currently amended)The mixture according to claim 23, wherein the additional
2 therapeutic gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1 33. (previously amended) The mixture according to claim 23, wherein the first and second
2 species of amplicons contains genes encoding for RANTES and B7.1.
- 1 34. (previously amended) The mixture according to claim 23, wherein the first and second
species of amplicons contains genes encoding for at least two species of cytokines.
- 1 35. The mixture according to claim 34, wherein the amplicons contain genes encoding for
2 interleukin-2 and interleukin-12.

- 1 36. (previously amended) Tumor cells transduced in accordance with the methods of claim 1.
- 1 37. (previously amended) Tumor cells transduced with a mixture of herpes simplex virus
2 amplicons in accordance with claim 23.
- 1 38. (currently amended) A method for production of an autologous vaccine to tumor cells
2 comprising transducing the tumor cells with a herpes simplex virus amplicon containing
3 the gene for an [immunomodulatory] immunostimulatory protein to provide transient
4 expression of the [immunomodulatory] immunostimulatory protein by the cells, wherein
5 the [immunomodulatory] immunostimulatory protein is selected from among
6 chemokines, intercellular adhesion molecules and costimulatory factors.
- 1 39. (currently amended) The method according to claim [1] 38, wherein the tumor cells are
2 transduced with the herpes simplex amplicons *ex vivo*.
- 1 40. (currently amended) The method according to claim [1] 38, wherein the tumor cells are
2 transduced with the herpes simplex cell *in vivo*.